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## 245 UN Conference on Environment & Development

As Presented at NAL's Issues and Answers Forum, November 18, 1992, and Updated November 1993  
by Roger Blobaum, Associate Director, World Sustainable Agriculture Association (WSAA)



I want to thank Jayne MacLean for the invitation to participate in this Issues and Answers Forum. She asked me to talk about my recent experience as the World Sustainable Agriculture Association's accredited representative to the United Nations Conference on Environment and Development. She also suggested covering some of the things that went on behind the scenes.

The conference, the largest UN-sponsored meeting ever held, is usually referred to by insiders as "UNCED." It's better known to everyone else as the Earth Summit.

This was much more than an international extravaganza involving more than 100 heads of state and delegations from 170 countries. It involved much more important issues than whether President Bush would go or what he would say when he got there.

This event, held last June [1992] in the beautiful city of Rio de Janeiro, was the culmination of a 2-year process that also included active participation by representatives of a record number of non-governmental organizations [NGOs]. The United Nations reported recently that 1,420 NGOs were recognized as part of the process. More than 1,000 of them had never participated in a UN process before.

Later I also want to report briefly on the preparatory meetings for the International Conference on Nutrition held a few weeks ago in Geneva. Some of the same NGOs, including my own, also are part of that process. The conference itself will begin in about three weeks in Rome.

My report on what happened at the Earth Summit is offered from the

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ALIN readers have seen a variety of images of NAL over the years, but how many instantly recognized this one of the exterior brickwork reflected in windows? By Jean Larson, Animal Welfare Information Center Coordinator. For an update on the NAL building and its physical environment, see pages 17-20, and 28.



perspective of someone who focused almost exclusively on sustainable agriculture. I was involved in the preparatory meetings, referred to as Prepcom IV, as a member of an international sustainable agriculture working group. We participated in five weeks of preparatory meetings, both official and otherwise, at the UN in New York last March and April [1992].

NGOs could buttonhole delegates in the halls and other open areas of the UN Building, sit in on some of their working sessions, provide them with materials, question them in special NGO forums, or arrange to meet with them formally. It was similar to what you would do to lobby a state legislature.

I also helped organize, and participated in, the International Forum on Sustainable Agriculture that was part of the NGO Global Forum in Rio. This forum for non-governmental organizations took place simultaneously with the formal and ceremonial events where official speeches were made and official documents were signed.

**M**ore than 300 representatives of NGOs from more than 40 countries worked together in these two sustainable agriculture groups in New York and Rio. There was good representation from both North and South, a strong feeling of shared purpose, and almost total agreement on the principles of agriculture and sustainability.

Those of us representing NGOs were referred to by some as a new generation of environmental diplomats who are learning how to be effective in influencing UN delegations, UN agencies, and the UN process itself. I believe this new level of involvement in the UN process is significant for sustainable agriculture.

What we saw for the first time in this process was widespread questioning on the world stage by NGOs of the policies of national governments. NGOs discovered they could pressure their own governments through this activity, challenging and even embarrassing them into being responsible.

We felt at times that Senator Gore was right when he said on the Senate floor, weeks before the Earth Summit was convened, that the principal threat to its success was the U.S. government. The press carried stories on the U.S.

positions on biodiversity and global warming, the fact that these positions lacked credibility and were not supported by most other nations in Rio, and the public relations nightmare this created. What was never reported was the fact that the U.S. delegation also was one of the worst on sustainable agriculture.

Our working group had to turn to delegations from other countries for help in beating back attempts by the U.S. delegation to weaken sustainable agriculture commitments in the documents being prepared for Rio.

We probably should have expected this. The official 424-page report to UNCED prepared jointly by several U.S. government agencies, including the Department of Agriculture, included only seven paragraphs on sustainable agriculture. And you had to go all the way to Page 320 to find that.

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**A**lthough thousands of media people covered the Earth Summit process, many important stories dealing with politically sensitive issues were never reported. These untold stories dealt with such officially off limits subjects as militarism, lifestyles, over-consumption, and energy.

Heavy dependence on fossil fuels in developed countries and their adverse impact on the atmosphere was kept off the agenda primarily by Saudi Arabia and the United States. Nuclear energy was kept off the agenda by France, which relies on nuclear power plants for 70% of its electricity. Almost all governments of industrialized nations made certain that Northern lifestyles and patterns of over-consumption, a



photo: Maria Elena Esquivel, courtesy of R. Blaubaum

**Roger Blobaum**

clear threat to global sustainability, were not seriously discussed.

All governments, both North and South, did everything possible to keep militarism from being discussed as a threat to sustainability. Constant pressure applied by the NGO Women's Caucus was probably the only reason the issue of military devastation as a threat to the environment was mentioned at all. Bella Abzug was a real force throughout the UNCED process.

NGOs kept these issues from being swept under the rug through conferences, forums, and other events at Prepcom IV in New York and at the NGO Global Forum in Rio. The scope of the Earth Summit was broadened and the UN process was enriched by this unofficial activity.

**T**o make this report more real and specific, I want to describe briefly how sustainable agriculture NGOs responded to four opportunities to make a difference at the preparatory meetings in New York.

After seeing the draft language on sustainable agriculture shortly after the meetings began, NGOs prepared and submitted 25 strengthening amendments. These proposed changes were submitted through official channels and distributed as well to all delegations. About half of these changes were adopted.



One early challenge was identifying individuals within national delegations that would help from the inside. Several delegations, as it turned out, included members who were political supporters of sustainable agriculture or were active in environmental NGOs at home. Most of them were from Northern Europe. They helped us from the inside throughout the five weeks of meetings in New York.

Our second opportunity to intervene came when the U.S. delegation introduced a package of amendments during a working session and claimed they were non-controversial. We discovered that the suggested changes were both controversial and damaging and appealed to other delegations for help.

The U.S. attempt to have the Earth Summit go on record as saying free trade would solve the problems of sustainability, as a result, was defeated. So was the attempt to cross out all references to farmers rights to the benefits of biotechnology while preserving all the rights of industry. The U.S. amendments also would have deleted all references to over-use of chemicals.

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NGOs also had another intervention opportunity when an attempt was made by the U.S. delegation to dilute the role of farmer organizations. NGOs were able to get permission for a representative of the International Federation of Agricultural Producers to address the delegates. She ably articulated the important role farmers and their organizations must play in a global shift to sustainable agriculture. The language favorable to farmers, as a

result, was rescued.

Finally, we pressed successfully for including a commitment to support an international ecological agriculture network. This commitment is in Agenda 21, the Earth Summit plan of action. It calls on UN agencies to "help develop information available through NGOs and to promote an international ecological agriculture network to accelerate development and implementation of ecological agriculture practices."

Unfortunately, implementation of the network commitment is being held up at this time by disagreement over how it should be set up. Some NGOs want a strong secretariat with a modified top-down approach. Others are suspicious of any kind of centralized control and feel it is sufficient at the beginning to simply link up all the networks now in existence.

I want to turn now to the NGO Global Forum, a 2-week event that took place at the same time as the Earth Summit. NGOs, including those working on sustainable agriculture, participated in more than 300 programs in temporary open-air meeting structures in Flamingo Park in downtown Rio.

The daily meetings in Structure 33, and under the trees nearby, focused on international sustainable agriculture initiatives, further discussion of the ecological agriculture network, and the preparation of two treaties. One was on sustainable agriculture. The other was on food security.

One limiting, and often frustrating, problem was having interpreters available. The NGO Forum was funded primarily by donations. There were occasional work stoppages by interpreters who refused to go forward until enough money could be raised to assure that they would be paid. Members of sustainable agriculture groups at times had to volunteer as interpreters to avoid cancelling the day's event.

Meanwhile an armada of modern buses and limousines were whisking the official delegates to Rio Central, a specially-built air-conditioned and heavily-fortified complex in a Rio suburb 40 miles away. It was surrounded by tanks and armored troop carriers, protected by check points, over-run by media, and well supplied with inter-

## UNCED Update

November 1993

by Roger Blobaum

Followup to the United Nations Conference on Environment and Development (UNCED) is underway at both national and international levels. The United Nations has established a Commission on Sustainable Development (CSD) as its main follow-through mechanism for implementing Agenda 21, the principal UNCED document. Issues relating to the chapter entitled "Promoting Sustainable Agriculture and Rural Development" are expected to be taken up in 1995.

The President's Council on Sustainable Development, a 25-person council appointed by President Clinton in June 1993, will prepare policy recommendations for the U.S. response to Agenda 21. Secretary Mike Espy is a member of the council, which is expected to have a working group on sustainable agriculture. Terry D'Addio (202-720-7173) is the USDA staff contact for UNCED followup. She is confidential assistant to Jim Lyons, Assistant Secretary for Natural Resources and the Environment.

preters.

The treaties were prepared by NGO working groups and debated by all of us. They provided a vehicle for bringing us all together around a set of principles and an agreed-on plan of action. This is the first time that a large number of NGOs from both North and South have ever reached consensus on a global commitment to a transition to sustainable agriculture.

The sustainable agriculture treaty states that there is an urgent need "to break the dominant predatory model of agriculture in favor of new patterns of sustainability that are equitable and participatory, to guarantee the full control of the means of production in the hands of the people who work the land, and to insure them a permanent source of income and high



levels of productivity."

Our treaty commits sustainable agriculture organizations around the world to work together in the 1990s and beyond toward these objectives:

- 1) Development and enhancement of sustainable farming systems;
- 2) Restoration of degraded agro-ecological and cultural systems;
- 3) Development and promotion of regional food self-sufficiency;
- 4) Development of alternative sources of sustainable agriculture information;
- 5) Increased farmer participation in setting agricultural research and funding priorities;
- 6) Levying of taxes on pesticides;
- 7) Cutting pesticide use and speeding up the transition to biological pest control methods.

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I have been presenting the treaty to U.S. groups and getting a strong positive response. I believe we finally have a global sustainable agriculture agenda.

Both semantics and the various ways certain concepts are articulated in different languages made these international discussions dif-

ficult. We found that words like "organic," "sustainable," "regenerative," and others we use here were unfamiliar or unacceptable to many. The one word all of us could accept to describe what we had in mind was "ecological."

The word "organic" does not appear, as far as I can tell, in any of the official Earth Summit documents. But the UN Development Project has come through with a new report that concludes that organic agriculture presents an attractive alternative to current non-sustainable practices in developing countries.

The report, released in Rio, does not claim organic farming is a panacea. What it does conclude is that "the available material tends to support the conclusion that, both in high potential areas and in marginal lands, organic agriculture offers agronomically feasible solutions for problems of environmental sustainability."

The call for sustainable agriculture is clearly stated throughout the official documents of the Earth Summit. The Rio Declaration on Environment and Development states that development must occur on a sustainable basis to meet the needs of present and future generations.

Those of us involved in this process believe the Earth Summit's 800-page plan of action marks an historic new commitment to sustainable agriculture by the UN and all nations. We feel it is a mandate for a global transformation of agriculture.

A new Sustainable Development Commission is being set up at the UN now to implement Earth Summit commitments. The present secretary general of the FAO is expected to be named to head it. Representatives of a large number of NGOs, including the organization I represent [WSAA], are in New York now trying to make sure it is set up in a way that assures that the Earth Summit's commitments to sustainable agriculture are met.

But NGOs are not going to be satisfied leaving this entirely in official hands. Our followup has included participation in the preparatory meeting for the International Conference on Nutrition [ICN] and in the conference itself. An accredited representative from my organization will be in Rome

for the conference itself as well.

The decision of the World Sustainable Agriculture Association to participate in the preparatory meeting was made after we received a faxed alert from the NGO secretariat in Geneva. It noted that initial drafts of ICN documents appeared to reflect a strong food industry bias, that a large number of multinational food company representatives were planning to attend, and that it appeared that only one or two international sustainable agriculture NGOs would be there. Help was needed, it was suggested, to challenge the food industry initiative and attempt to get sustainable agriculture commitments written into the official documents.

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It is important to point out that multinational food companies like Nestle and Pepsi Cola and Gerbers have set up captive NGOs, which have consultative status at the UN. That means they automatically are invited, as NGOs, to participate in all UN events. The chief lobbyist for the Grocery Manufacturers of America in Washington, for example, led a successful effort to penetrate the pre-conference meetings of authentic NGOs in Geneva and to work against our interests.

The NGOs met for two days before the official ICN meeting opened. Nearly half the people in my working group were food industry professionals, for example, and they outnumbered real NGOs in the working group that dealt with issues like local food self-sufficiency. This kind of participation by industry advocates is a new and significant development and is unprecedented at a UN conference.

NGOs lodged an official protest at a delegate session but no action was taken.

The NGOs, despite all these problems, presented the official meeting with a document that, among other things, recommended adoption of the two additions proposed on behalf of my organization. One was to have the ICN reaffirm the sustainable agriculture commitments adopted at the Earth Summit. The other was inclusion of specific language calling on national governments to promote adoption of sustainable food production methods and reduced pesticide use. The low point of the official meetings for me was watching a member of the U. S. delegation rise and express opposition to my second proposal.

A review of the revised documents being readied for the Rome meeting show that modified versions of both of my recommendations were included. It also showed that several changes pushed by my sustainable agriculture NGO colleagues also survived. These included language calling for improved access to land for small producers, support for production of indigenous and traditional foods, and encouragement of crop rotations and biological inputs.

The proposal presented on behalf of my organization called on governments to accelerate the development of sustainable agriculture practices, including ecological agricultural methods and integrated pest management, and to strengthen research and extension programs that help facilitate their adoption. It said techniques that help reduce the use of agricultural chemicals should be encouraged. In the final version, the references to ecological agricultural methods and integrated pest management were crossed out.

Also challenged by the U.S. delegation and watered down was an NGO proposed section that called for development strategies that "create conditions for economic growth with particular focus on the objectives of poverty alleviation and food security and, based on food grown locally in sustainable agriculture systems, to promote national food self reliance."

One significant issue here is whether international agencies and individual governments will continue to push Green Revolution approaches in

developing nations. Another is whether they will continue to discourage local food self sufficiency and promote increased globalization of the food system. The issues are clearly joined on the world stage but the outcome of the debate remains in doubt.

One of the most striking pieces of film showed stark aerial views of huge clear cut areas in Oregon and Washington. The scenes of scalped mountains were the worst I had ever seen. The commentators used this film to dramatize the double standard that has nations like ours pressing Brazil to save its forests while we continue to cut ours down.

Back here in the United States, more than 300 representatives of NGOs that were involved in the UNCED process met for three days at Michigan State University recently to discuss our next steps. A surprising development was statements from several academics that they had been left out of the Earth Summit process but were interested in becoming involved in the followup. Comments of

this kind led me to contact Jane Gates [of NAL's Alternative Farming Systems Information Center] and suggest that the National Agricultural Library might be able to help make it easier for academics, including graduate students, to gain access to the UNCED and ICN documents and other materials generated.

Let me wind up by sharing a Rio highlight that tells us a good deal about the nature of the struggle between nations over the environment. It involves Brazilian television, which provided a lot of coverage of the Earth Summit.

One of the most striking pieces of film, which was run over and over, showed stark aerial views of huge clear cut areas in Oregon and Washington. The scenes of scalped mountains were the worst I had ever seen. The commentators used this film to dramatize the double standard that has nations like ours pressing Brazil to save its forests while we continue to cut ours down.

I believe much was accomplished in Rio, especially in regard to agriculture. I believe we have entered a new era of global environmental protection. The challenge now is to make certain the commitments in the Earth Summit plan of action are kept. I can assure you that sustainable agriculture NGOs from throughout the world will do their part to see that these promises are kept.



photo: J. Swab

Gabriel Hegyes, Roger Blobaum, Jayne MacLean, and Jane Gates conferred on sustainable agriculture issues at NAL's Alternative Farming Systems Information Center following Blobaum's presentation.





**Alternative  
Farming  
Systems**

## **Sustainable Agriculture Network**

by Gabriel Hegyes  
Coordinator, Sustainable  
Agriculture Network

Knowledge about sustainable agricultural issues and practices is available from farmers, researchers, educators, nonprofit organizations, and publishers. However, coping with these dispersed knowledge sources is an increasing challenge. The Sustainable Agriculture Network (SAN) was developed, with support from the USDA's Sustainable Agriculture Research and Education (SARE) program, to help people find the right information when they need it. SAN is a cooperative effort dedicated to information exchange by universities, government, agribusiness, and nonprofit organizations.

Some of the best ideas on sustainable agriculture are still in the minds of people. Over 700 individuals and organizations willing to share their expertise on various aspects of the subject are listed in the *Sustainable Agriculture Directory of Expertise*, one of SAN's publications. It represents a broad array of people and organizations with valuable experience in sustainable agriculture.

Preparing such information, in a form that is useful to farmers, is a high priority of SAN. Besides the "Directory," publications currently available, both in hard copy and electronically through *sanet-mg*, include:

- *Managing Cover Crops Profitably*
- *Showcase of Sustainable Agriculture Information and Educational Materials*

For a hard copy of these titles, contact:

*Sustainable Agriculture  
Publications  
Hills Bldg, Rm 12  
University of Vermont  
Burlington, VT 05405-0082*

Another SAN publication is the *Calendar of Sustainable Agriculture Events*. It includes conferences, field days, SARE grant deadlines, and seminars. It is also available through the SAN Coordinator by mail or electronically through *sanet-mg*.

*sanet-mg* is a conference that has been formed on the Internet for sharing ideas and information electronically, an increasingly important activity of SAN. To subscribe, send the following statement:

subscribe *sanet-mg*  
to:  
[almanac@ces.ncsu.edu](mailto:almanac@ces.ncsu.edu)

*Almanac* is an automated mail handler. For more information consult *Getting Started Electronically with SAN*, a publication available on request to Gabriel Hegyes (see addresses and numbers below right).

SAN publications are also available on CD-ROM, as are SARE project reports. Using Folio Views software, the information is transformed into microcomputer databases that demonstrate the power of state-of-the-art hypertext management. For a free copy, send a blank, formatted, high-density 3.5" diskette to:

*"Folio Infobase"  
c/o Phil Rasmussen  
Head, Ag. Systems Technology  
Utah State University  
UMC-2300  
Logan, UT 84322-2300.*

A common language is important for finding information from a variety of sources. Begun by Steve Mitchell of the Bio-Agricultural Library at the University of California, Riverside, and continued by Gabriel Hegyes, the *Thesaurus* project will help organize the sustainable agricultural knowledge available and refine a word list that will be useful to people looking for information, authors assigning key words to their documents, as well as to those creating indexes.

The Network will be enriched in the future by information from "experience," case studies, and carefully observed trials—resources that will add art and craft to the science of sustainable agriculture. A SAN committee is exploring ways to describe and share such "experiential" information so that its validity and range of applicability can be more easily evaluated by potential users.

There is no fee involved in becoming a member of SAN. You can "join" simply by participating in one or more SAN activities, e.g., contribute information to the calendar (contact Gabriel Hegyes), join the electronic discussion group (see above), volunteer yourself or another expert for listing in the Directory (contact ATTRA at 1-800-346-9140), order SAN publications or the Folio Infobase. Let us know what you think!

For further information about any or all SAN programs, contact:

*Gabriel Hegyes, SAN Coordinator  
c/o AFSIC, Room 304  
National Agricultural Library  
10301 Baltimore Boulevard  
Beltsville, MD 20705-3251  
Telephone: 301-504-6425  
TTY: 301-504-6856  
FAX 301-504-6409  
Internet: [ghegyes@nalusda.gov](mailto:ghegyes@nalusda.gov)*





## Technology Applications

The following three brief articles relate to the final report of the National Agricultural Text Digitizing Project. Brian Norris' announces the publication, Judith Zidar's describes its contents, and the third consists of the text of an NATDP brochure which was developed at Iowa State University to serve as an executive summary of the project report issued November 15, 1992.

## Text Digitizing Report Available From NAL

by Brian Norris  
Public Affairs, NAL

Copies of the final report on the National Agricultural Text Digitizing Project (NATDP) are available from the National Agricultural Library.

NATDP was a six-year project to test the "feasibility, cost and effectiveness of newly emerging technologies for capturing page images, providing access to their content and disseminating them for use in the agricultural community."

According to Pam Andre, NAL Associate Director for Automation and principal investigator for the project, NATDP began with cooperation between NAL and the University of Vermont but grew to include 45 land-grant university libraries and one special library.

"Under the project, whole sections of agricultural libraries were scanned and placed on CD-ROMs," Andre said. "Copies of the discs were distributed to university libraries throughout the United States where

their ease of use and effectiveness were evaluated."

In brief, the final report, published in November 1992, concluded that optical scanning and text recognition technologies will play a key role in future agricultural information dissemination activities throughout the world. The report also recommends that NATDP become a fully operational "program," which it has under NAL leadership. The new program has produced several CD-ROMs covering a variety of agricultural subjects including aquaculture, agronomy, and food irradiation.

The final report, entitled *The National Agricultural Text Digitizing*

*Project: Toward the Electronic Library*, is available by sending a self-addressed label with the request to:

Pamela Q. J. Andre  
Associate Director, Automation  
National Agricultural Library,  
Rm 204  
10301 Baltimore Boulevard  
Beltsville, MD 20705-2351

## NATDP Final Report Ready for Distribution

by Judith A. Zidar  
Database Administration Branch

The final report of the National Agricultural Text Digitizing Project (NATDP) was published at Iowa State University (ISU) in November 1992 and distributed to a limited audience. ISU has now reprinted the report in its entirety, and the National Agricultural Library will distribute it to a much



photo: J. Swab

Discs from four of the first projects of the National Agricultural Text Digitizing Project.

wider audience.

The report, titled *The National Agricultural Text Digitizing Project: Toward the Electronic Library (Report of the Pilot Project, Phases 1-2 1986-1992)*, was prepared by Project Director Nancy L. Eaton of Iowa State and by Principal Investigator Pamela Q. J. Andre of NAL. It includes a "Foreword" by Clifford A. Lynch of the University of California.

In this report, NATDP is described—its inception, funding, objectives, and history—along with the technology used, the experience gained, and the results achieved. Details of the text recognition error rate study and of the retrieval software evaluation study are published for the first time. The field test responses to the four pilot CD-ROMs (*Aquaculture*; *Food, Agriculture and Science*; *Acid Rain*; and *Agent Orange*) are presented, and recommendations for further investigation are given.

Nine appendices round out this 100-page report, including lists of participants, advisors, and vendors; a white paper on platform selection by Dr. Lynch; the final report of NATDP's software consultant, Pauline A. Zoellick of Boulder, Colorado; a report on the role of telecommunications and computer networking in NATDP (Phase 3 of the pilot study) by Dr. Lynch; and a summary of Phase 3 by Susan K. Nutter and John E. Ulmschneider, both of North Carolina State University.

The report concludes that optical scanning and text recognition technologies will play a key role in future agricultural information dissemination activities throughout the world. It recommends that NATDP become a fully operational program, which it has. The new program has produced several CD-ROMs covering a variety of agricultural subjects, including aquaculture, agronomy, and food irradiation.

For a free copy of the NATDP final report, send a self-addressed label with the request to:

*Pamela Q. J. Andre*  
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National Agricultural Library,  
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10301 Baltimore Boulevard  
Beltsville, MD 20705-2351



photo: B. Norris

Pamela André, Joseph Howard, and Nancy Eaton present the early products of the NATDP, at the time when it was changing from a pilot project to a national program.

## National Agricultural Text Digitizing Project: Toward the Electronic Library

### Introduction

The National Agricultural Text Digitizing Project (NATDP) is an outgrowth of the vision of people like Joseph H. Howard, Director of the National Agricultural Library (NAL).

Howard, like many library professionals today, believes that electronic information is the future for libraries. The trend toward computerized information is having, and will continue to have, significant impact on the way libraries conduct their activities. This was the impetus behind NATDP.

The National Agricultural Text Digitizing Project is an effort by NAL and land-grant university libraries to examine and develop ways that rapid advances in electronic information management could be applied to increasing access to agricultural information.

"The continued well-being and growth of United States agriculture is dependent on access to information for everyone within the nation's agricultural community," Howard said. Howard believes that electronic collections of agricultural information will make up an increasing percentage of library resources. At the same time, he and other library professionals recognize that there is much work to do to make the transition from paper collections in libraries to electronic collections.

### The Project

The National Agricultural Text Digitizing Project began in 1986 with cooperation between NAL and the University of Vermont, but grew in the next four years to include 46 participating libraries.

The first activity was to evaluate the new technology of optical scanning, a technology that allows printed text and images to be captured in digital form for publication in electronic form.

Project participants were anxious to determine optical scanning's application for improving worldwide access to agricultural literature. Specifically, the purpose of the project was to test the "feasibility, cost, and effectiveness of



newly emerging technologies for capturing page images, providing access to their content, and disseminating them for use in the agricultural community."

During the years of the project, four CD-ROM sets were produced and provided to land-grant university libraries for use and evaluation. The CD-ROMs covered aquaculture, international agricultural research, Agent Orange, and acid rain.

## Funding

The cooperative nature of the NATDP, including the varied funding support received, was a key reason for its success. The project was funded through NAL's small research and development budget and by contributions from land-grant university libraries. Funds were also provided by the Science and Education Office of the U.S. Department of Agriculture and through a grant to the University of Vermont from the U.S. Department of Education.

## Conclusions and Recommendations

NATDP managers concluded that optical scanning and text digitizing are technologies that work very effectively in providing information to the agricultural community. This conclusion was tempered, however, with several caveats. First, a great deal of time is required to learn to use full-text information effectively. Also, technical and professional support are very important in ensuring effective use. Lack of technical expertise prevented several test sites from using the project products successfully. It is critical that information users understand the complexity of the technology and the time required to learn to use it effectively.

Next, users should be aware that "upgrades" of the technology will be needed on a regular basis. Hardware and software evolved rapidly during the period of the research and demonstration project, and continue to do so.

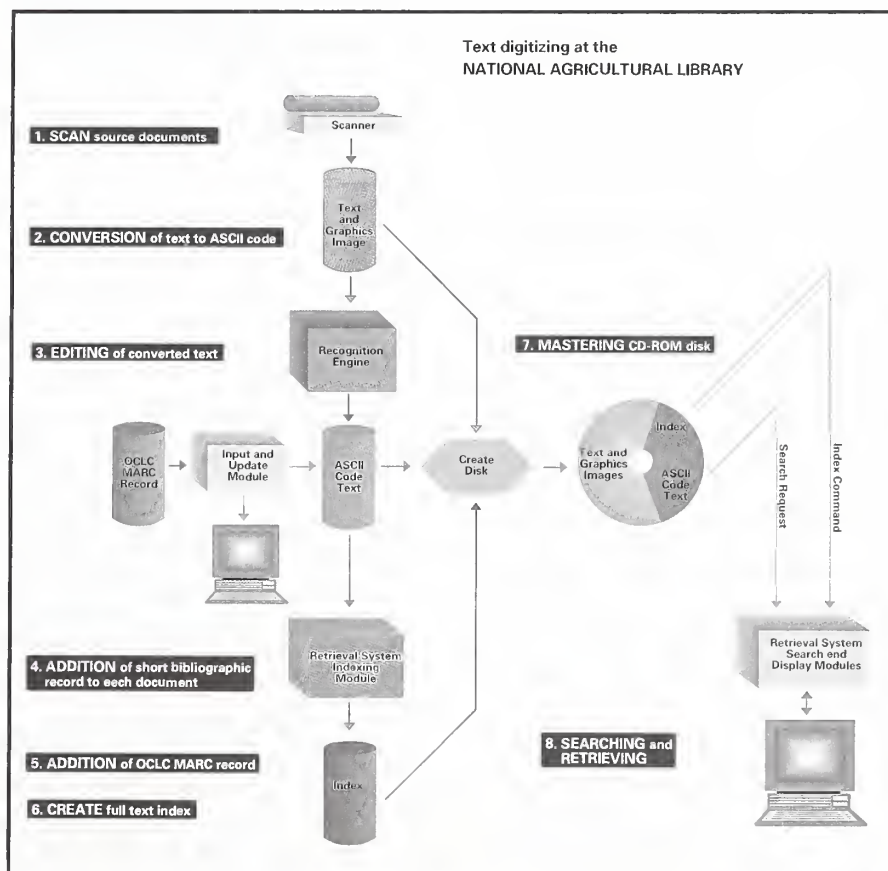
Based on this conclusion, it is recommended that NAL continue a National Agricultural Text Digitizing Program. This program should include:

- hiring permanent staff.
- developing a process for selecting appropriate materials for scanning.
- making image material displayable on a variety of monitors.
- determining specifications for archiving data so that content is independent of the workstation platform and the specific distribution medium.
- developing a system to allow users to gain access to materials from personal computers through networks.
- pursuing licensing solutions that allow networked access to CD-ROM collections.
- ensuring the integrity of data and content regardless of hardware and software changes.
- protecting and refreshing master disks or source databases as the electronic storage medium ages.
- ensuring that software used supports multiple platforms (DOS, OS/2, Macintosh, UNIX operating systems) since the user base of hardware must be used for distribution.

## The Program's Future

In 1992, NATDP became a fully operating "program" through which the library began routinely to produce CD-ROMs containing a variety of agricultural information and to make these available to land-grant university libraries. The disks contain full text and images which are accessed through the retrieval package "Windows Personal Librarian," developed by Personal Library Software, Inc., of Rockville, Maryland. As funds become available, NAL is moving ahead in producing other CD-ROMs containing portions of its collection.

With assistance from the American Society of Agronomy, NAL has produced a CD-ROM containing 16 volumes of that society's journal. Hoping to building on this cooperation with a professional scientific society, NAL has sponsored a workshop for the presidents and editors of other major agricultural professional societies to explain the value of the text digitizing program in increasing the accessibility



Iowa State University

and preservation of the societies' journals.

NAL also has worked with Tuskegee Institute to produce a disk containing selected materials from the collection of works by famed scientist George Washington Carver. This activity illustrated how microfilm can be converted to electronic page images that can be accessed electronically.

As the nation's chief agricultural information resource, NAL is continually working to expand its user community and its information services to that community. With an ongoing program to develop electronic agricultural information products, NAL is clearly moving into the electronic future and will continue to provide leadership to the national agricultural information community.

### List of Participants in NATDP

Auburn University, Auburn, Alabama  
University of Alaska, Fairbanks  
University of Arizona, Tucson  
University of Arkansas, Fayetteville  
University of California, Berkeley  
University of California, Davis  
Colorado State University, Fort Collins

Delaware State College, Dover  
University of Florida, Gainesville  
University of Georgia, Athens  
Fort Valley State College, Fort Valley, Georgia

University of Hawaii, Honolulu  
University of Idaho, Moscow  
University of Illinois, Urbana/Champaign

Iowa State University, Ames  
Kansas State University, Manhattan  
University of Kentucky, Lexington  
Louisiana State University, Baton Rouge

University of Maine, Orono  
University of Maryland, College Park  
University of Maryland-Eastern Shore, Princess Anne  
University of Massachusetts, Amherst  
Cargill Information Center, Minneapolis, Minnesota

University of Minnesota, St. Paul  
University of Missouri, Columbia  
Montana State University, Bozeman  
University of Nevada, Reno  
University of New Hampshire, Durham

Rutgers University, New Brunswick, New Jersey  
New Mexico State University, Las Cruces

North Carolina State University, Raleigh

North Dakota State University, Fargo  
Ohio State University, Columbus  
Ohio State University, Ohio Agricultural Research and Development Center, Wooster

Oklahoma State University, Stillwater  
Oregon State University, Corvallis  
Pennsylvania State University, University Park

University of Puerto Rico, Mayaguez  
Clemson University, South Carolina  
University of Tennessee, Knoxville  
Texas A&M University, Prairie View  
University of Vermont, Burlington  
Virginia Polytechnic Institute, Blacksburg

Washington State University, Pullman  
University of Wisconsin, Madison



## NAL Adds International Research Library on CD-ROM to Collection

The National Agricultural Library has added to its collection a complete international agricultural library on compact disc produced by the Consultative Group on International Agricultural Research (CGIAR) and The World Bank.

The 17-disc "Compact International Agricultural Research Library: Basic Retrospective Set 1962-1986 (CIARL BRS)" contains full-text documents covering six agricultural areas, including productivity, management of

natural resources, improving the policy environment, strengthening agricultural research, germplasm conservation, and building linkages between developing countries and other elements of the global agricultural system.

NAL staff provided technical assistance during the early development of the library-on-discs and evaluated the database during the final trial period.

"This is a significant development for world agriculture, particularly for developing countries," said Pam Andre, NAL Associate Director for Automation, who oversaw library participation in the project. "A major research library can now be accessed quickly and easily through personal computer. Since the library is available worldwide, the agriculture of countries throughout the world stand to benefit."

The discs contain 1,350 titles comprising more than 190,000 pages of research materials, including books, reports, manuals, conference proceedings, field guides, newsletters, maps, and bibliographies. In addition, there are over 50,000 graphic images in black-and-white and color, including photographs. Documents in 10 languages, contributed by 20 CGIAR and associated agricultural research centers in 16 countries, are included. Over 6,000 descriptors identify various records, the most frequent of which point to yields, plant breeding, fertilizers, disease resistance, germplasm, rice, and seeds.

The World Bank is marketing the library worldwide for a price of \$1,950, plus shipping and handling.

NAL has added two copies of the set to the NAL collection. They are available to patrons for use in the library's Software Demonstration Center, Room 103 in the NAL Building.

For additional information contact Judith Zidar at:

Telephone: (301) 504-6813  
TTY: (301) 504-6856  
Fax: (301) 504-7473  
Internet: [jzidar@nalusda.gov](mailto:jzidar@nalusda.gov)

Or write to:

Judith Zidar  
Information Systems Division  
Room 013  
National Agricultural Library,  
10301 Baltimore Boulevard  
Beltsville, MD 20705-2351





# ISIS Now Has Current Indexing Citations

by Claudia Weston  
Database Administration Branch

In September, the Indexing Branch began using the ISIS Journal Indexing Subsystem to input current indexing records. Using ISIS in this capacity enables searchers of the ISIS system to retrieve AGRICOLA journal citations two to six weeks earlier than before. It will also result in a significant cost savings to NAL in that two processing systems will no longer be maintained. This achievement is the culmination of years of hard work in development and testing by the library software vendor (VTLS, Inc.), and NAL staff.

Having an indexing component that interacts with other subsystems is not a feature common to integrated library systems. It was this integration, however, that was deemed to be a critical aspect of implementation.

At NAL, indexing records are created for individual journal articles or book chapters and are associated with the host item through a brief description. Examples of host items include the specific issue of a journal in which the article is located or the specific title of the book in which the chapter is found. The host item, also known as the containing item, and the documents contained therein share many features in common. Some of these shared features are: the classification number, place of publication, format, and — frequently but not always — the language.

Because of the large number of indexing records created by the Indexing Branch, the National Agricultural Library desired a system which would expedite the input of these records. Two features of the Journal Indexing Subsystem assist in this endeavor. The need to re-key duplicative data has been minimized by mapping appropriate elements from the host item record located within the Cataloging Subsystem to the indexing record being created within the Journal Indexing Subsystem. Once a citation for an ar-

ticle from a specific journal issue is created, elements from this record can be carried over from one indexing record to another.

Because of the changing nature of controlled vocabulary and the relatively static nature of older records on the AGRICOLA database, NAL also required a feature that would enable patrons to search multiple versions of thesaurus terms as subject headings while providing authority control based on only the latest version. This authority control is performed through online verification of the descriptors assigned to the indexing record. During input, the system allows the indexer to proceed only if the term that has been entered is valid. The use of multiple versions of thesaurus terms is a functional component of the present Journal Indexing Subsystem.

The final indexing-specific feature which has been incorporated and is somewhat unique to NAL is the ability to insert scanned author abstracts into indexing citations. From 1988 to 1990, NAL staff conducted studies on various methods of scanning and found that scanning and optical character recognition (OCR) technologies were two and a half times faster than the manual keying of abstracts. This increased rate includes the time required to correct errors resulting from the incorrect recognition of characters by the conversion program. In 1991, the use of scanning was incorporated into the production workflow and the number of scanned abstracts added to AGRICOLA has steadily increased. During the initial development of the system requirements, the ability to incorporate scanned abstracts into the indexing record was not even considered. Today, however, it has become an integral component in the creation of indexing records.

For additional information, please contact either:

*Claudia V. Weston*  
Information Systems Division  
Room 013  
National Agricultural Library  
10301 Baltimore Boulevard  
Beltsville, Maryland 20705-2351  
Telephone: (301) 504-6813  
TTY: (301) 504-6856  
Fax: (301) 504-7473  
Internet: cweston@nalusda.gov

or:

*Marie Funkhouser*  
Indexing Branch, Room 011  
National Agricultural Library  
10301 Baltimore Boulevard  
Beltsville, Maryland 20705-2351  
Telephone: (301) 504-6490  
TTY: (301) 504-6856  
Fax: (301) 504-5213  
Internet: mfunkhou@nalusda.gov

## ELECTRONIC ORDERING OF MONOGRAPHS IMPLEMENTED AT NAL

The Acquisitions & Serials Branch recently began electronic transmission of monographic orders to one of NAL's domestic vendors, Blackwell North America (BNA). NAL is the first library to successfully use electronic ordering between the VTLS Acquisitions and Fund Accounting System (AFAS) and BNA. VTLS introduced electronic ordering capabilities in Version 2.0 of AFAS, released earlier this year.

Electronic transmission of orders means that BNA will receive NAL's book requests in a matter of minutes, rather than days. Orders will be processed sooner by the vendor, resulting in faster receipt of scientific literature at NAL. Patrons will have earlier access to titles requested electronically than other titles ordered via the U.S. mail.

NAL is currently working toward implementing electronic ordering with Baker & Taylor, another of its domestic vendors. NAL plans to use electronic ordering for as many of the library's vendors as possible. The Acquisitions & Serials Branch is also testing electronic transmission of invoice information for books and serials to USDA's National Finance Center in New Orleans. If implemented, this service will result in faster payment of invoices received from NAL's book and serial vendors. The Branch's electronic activities are part of NAL's initiative to use the most current tech-

nology available in all of its functions.

Successful use of electronic ordering at NAL is the culmination of several months of cooperative work between Karl Debus and Paul DeAnna of the Acquisitions & Serials Branch, John

Stetka of the Information Systems Division, Chris Patterson of Blackwell North America, and Russell Shock of VTLS, Inc.

—Karl Debus

developing subject headings for submission to the Library of Congress.

A major part of Clark's experience in the Washington area during the 14 months has been shared with her family. Her husband, William B. Clark, served during the period as a Robert Wood Johnson Foundation Fellow working on health policy in the Capitol Hill office of Senator Dale Bumpers (D., Arkansas, Chair of the Subcommittee on Agriculture, Rural Development and Related Agencies of the Senate Committee on Appropriations). At the same time her daughter, Corrie, was a pupil at the Tilden Middle School in Montgomery County, Maryland. Her son, Will, is a student at Middlebury College in Vermont.

"What a wonderful year it's been," Clark exclaimed; "It was great getting to know all of the staff, the experts in each of the NAL areas, learning new ways to cooperate, getting everything focused so that I will be able to call from Florida and know with whom to work to solve problems! I encourage other librarians to come to NAL to work!"

## Oregon State University Joins RDDS

On November 1, 1993, the Oregon State University (OSU) Libraries became the thirty-eighth participant in the NAL Regional Document Delivery System (RDDS). They join RDDS Region 7 (Northwest-Intermountain), coordinated by Washington State University. RDDS is a national network of land-grant university libraries that provide documents directly to USDA employees stationed in thirty-six states and Puerto Rico. Two of the many benefits of RDDS are that USDA employees have faster and greater access to documents. In joining the RDDS, the OSU Libraries assumed responsibility for providing documents to Oregon-based USDA employees. When a requested document is unavailable at the OSU Libraries, the request will automatically be referred to Washington State University, other RDDS Libraries, or to NAL.



## News from Other Libraries

### Clark Completes Work at NAL as Visiting Librarian

Mae Clark, Agricultural Documents Cataloger and Head of the Science Monograph Cataloging Team at the University of Florida in Gainesville has completed work as a Visiting Librarian at NAL from September 1992 to the end of October 1993. Her particular emphasis during the 14-month period was cataloging issues regarding electronic publications. Within the next few years, it is expected that all University of Florida agricultural publications will be issued on CD-

ROMs. In order to provide "the same access to the many documents on the CD-ROM that they would have had as single paper documents," Clark focused on resolving some of the bibliographic access problems.

Working with Mike Esman, Head of the Special Materials Section in NAL's Cataloging Branch, and Claudia Weston, ISIS Coordinator in NAL's Database Administration Branch, Clark prepared a poster session for the New Orleans meeting of the American Library Association. It described the Florida project and the proposed solutions to bibliographic access. Clark, Esman, and Weston also wrote "Cataloging Challenges: Providing Bibliographic Access to Florida's Full-Text Electronic State Documents," to be published in *Cataloging and Classification Quarterly*, Vol. 18, Nos. 3/4, Fall 1994. Another article, "Electrifying Extension," reports the reactions of librarians and extension agents to the University of Florida CD-ROM project; it will be published in the Summer 1994 issue (Vol. 2, No. 2), of the *Journal of Agricultural and Food Information*, which is edited by Robyn Frank of NAL.

Clark spent part of her time at NAL working for the University of Florida, inputting Florida publications into AGRICOLA as part of the Cooperative Cataloging Program. She also spent part of her time on NAL activities, including the External Relations Committee of the library's Strategic Planning Initiative, and on projects relating to the entire agricultural library community, such as



photo: J. Swab

Mae Clark



USDA employees stationed on the OSU campus must retrieve documents available at the OSU Libraries. For documents not available at the OSU Libraries, requests will be accepted and referred. For further information, contact Doris Tilles. Use standard NAL/USDA document request forms (AD-245/CALS) and direct inquiries and requests to:

*ILL*

*Kerr Library 121*

*Oregon State University*

*Corvallis, OR 97331-4501*

*Telephone: 503-737-4488*

*FAX: 503-737-3453*

*Internet: ill@kerr.orst.edu*

—Tanner Wray

## Newsome Coordinates RDDS Region 2

Karen Liston Newsome, Coordinator of the Illinois Research and Reference Center [IRRC, the inter-



photo: T. Wray

**Karen Newsome**

library lending unit at the University of Illinois at Urbana-Champaign (UIUC)], is the Coordinator for the NAL Regional Document Delivery System (RDDS) Region 2 (East Central Region). Currently serving USDA personnel only within the state of Illinois, Newsome is enthusiastically exploring the possibility of expanding Region 2 to include other states. Newsome is also assisting NAL staff in revising the statistics collected and reported by the 38 RDDS participants throughout the United States.

One of the UIUC Library's greatest assets is the IRRC staff and their tireless dedication to making the UIUC's 11 million volumes accessible to other libraries, scholars, and researchers. Newsome is one of two full-time librarians in the IRRC. A support staff of 6 FTE and a small army of students handle the processes involved in searching, retrieving, sending, and keeping track of the almost 93,000 loans and photocopies processed between July 1992 and June 1993, 1,700 of which were for USDA personnel.

As Coordinator of one of Illinois' four Research and Reference Centers, Newsome was faced with severe budget reductions in the Fall of 1991, but the unit's funding recently regained stability. IRRC's commitment to the RDDS program has remained strong throughout this difficult period. In light of its challenged financial status, the IRRC redesigned and will continue to examine and transform its procedures to deliver services effectively. The greater use of technologies such as telefacsimile, electronic mail, and electronic text transmission are expected to further speed and streamline the IRRC's procedures and enhance responses to users' needs.

Before heading one of the largest interlibrary lending offices in the U.S., Newsome coordinated the reference center of a 9-county multi-type cooperative network in Fort Wayne, Indiana. She was introduced to librarianship at the Michigan Information Transfer Source (MITS), the University of Michigan's information brokerage. Newsome was employed there as a student assistant while earning her undergraduate degree in English Literature and MLS degree at the University of Michigan.

## Brown Coordinates RDDS Region 3



photo: T. Wray

**Steven Brown**

Steven Brown, Circulation and Document Delivery Coordinator at the University of Georgia Science Library, is the Coordinator for the NAL Regional Document Delivery System (RDDS) Region 3, serving USDA personnel in Georgia, North Carolina, South Carolina, Florida, Puerto Rico, Alabama, Tennessee, and Mississippi. Other Region 3 personnel and cooperators include Marissa Ratcliff, RDDS Clerk at the University of Georgia; Cynthia Hall and Ann Ward at North Carolina State University; Rhonda Patton at Clemson University; Beth Senn and LeiLani Freund at the University of Florida; Martha Irby at Mississippi State University; Linda Peabody at Auburn University; Bidanda Ponnappa at the University of Tennessee; and Joan Hayes at the University of Puerto Rico Agricultural Experiment Station at Rio Piedras.

Brown supervises 10.5 full-time staff members engaged in circulation, reserve, stacks maintenance, and document delivery operations. The delivery operation provides articles and books to USDA personnel in Region 3 and to University researchers on campus and



at the University's agricultural, ecological, and marine science experiment stations. In addition, it supplies Science Library materials requested through the libraries' centralized Interlibrary Loan Office. The document delivery operation processed 23,000 requests last year, including 11,700 from interlibrary loan, 7,800 for the NAL RDDS, and 3,600 for branch experiment stations. Other Region 3 participants handled an additional 4,800 requests for USDA personnel. Brown also aids in staffing the reference desk.

As the first formal region established in the RDDS network, Region 3 celebrates its 20th anniversary in 1993.

In addition to coordinating the region since 1973, the University of Georgia has been active in a variety of USDA/NAL projects including the microfilming of experiment station and extension documents, cooperative indexing, testing of CD-ROM products, and a study of NAL's ISIS system. In conjunction with RDDS work, Brown and his unit conducted the 1986 ARS-NAL national study of telefacsimile in cooperation with Keith Russell of NAL. Currently he is coordinating the rewriting of the Washington State University RDDS operations manual for use as a national manual that conforms to the new RDDS Guidelines.

Owing to a fortunate lack of interest in collegiate football, Brown was able to make an easy transition from his undergraduate studies at the Ohio State University to his graduate work at the University of Michigan. After earning his MLS in 1978, he came to the University of Georgia in the capacity of RDDS Regional Coordinator and Reference Librarian. In 1983 he was appointed to head the newly formed Document Delivery Unit, created by combining RDDS operations with those of branch station loans. In mid-1993 he assumed supervision of yet another new unit when Document Delivery was combined with Circulation.

## Sibia Coordinates RDDS Region 8

Ted Sibia, Head of the Biological and Agricultural Sciences Department of the Shields Library at the University of California at Davis, is the Coordinator for the NAL Regional Document Delivery System (RDDS) Region 8 (Western Region). This region serves USDA personnel within the states of California, Nevada, Arizona, and Hawaii. Cooperating libraries and personnel include Todd Boelman and Karen Paschke at UC Davis; Sandra

Eberhard at UC Riverside; Susan Stewart and Betty Hulse at the University of Nevada, Reno; Mina Parish and Carol Kochan at the University of Arizona; and Wilma Wilkie at the University of Hawaii. During fiscal year 1992 Region 8 participants handled 7,100 document requests for USDA personnel.

As Head of the Bio/Ag Department, Sibia's responsibilities include collection development, reference service, educational services, and on-line searching. The Department employs six librarians and support staff and 2.5 full-time student assistants. The Bio/Ag Department is responsible for the RDDS program in Region 8, providing rapid document delivery from its strong Agricultural Sciences collection, particularly the areas of Viticulture, Enology, Nematodes, Bee Biology, and Agricultural Mechanization.

Before coming to Shields Library in August 1979, Mr. Sibia worked as Head of the Science and Technology Department, Virginia Polytechnic Institute and State University, and at Kansas State University Libraries, Manhattan, Kansas. His first job in the field of library science was at Linda Hall Library of Science & Technology in Kansas City, Missouri. Mr. Sibia's achievements include a Masters degree in Horticulture Science, a MLS in librarianship, and the publication of various articles.

With Susan Stewart and Tanner Wray (RDDS Coordinator), Mr. Sibia recently co-hosted a meeting of personnel from all Region 8 participating

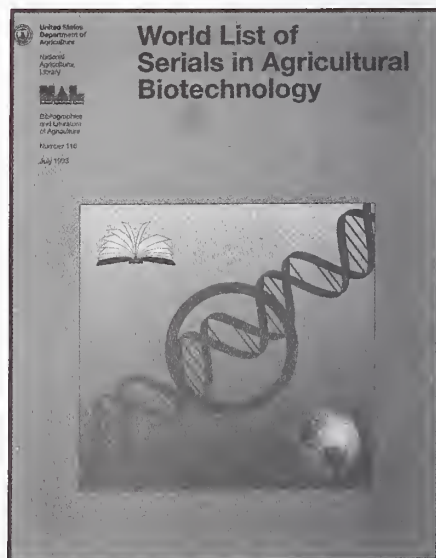
libraries. Participants reviewed current policies and procedures and discussed changes in RDDS.

In conjunction with NAL staff, Mr. Sibia recently conducted an assessment of the information needs of ARS researchers in locations with limited library service. In support of this study, Mr. Sibia visited several USDA facilities in California and the Pacific Northwest. A report on the study, titled *Assessment of Information Services to USDA Agricultural Research Service Scientists* was completed in March 1993. It has since been prepared for publication and will be distributed in early 1994.



photo: T. Wray

Ted Sibia







## New Publications of Note

### World List of Serials in Agricultural Biotechnology Available

The Biotechnology Information Center (BIC) of the National Agricultural Library has compiled and published a *World List of Serials in Agricultural Biotechnology*, containing over 3,700 entries. [See the cover illustration on the previous page.]

Dr. Ray Dobert, coordinator of BIC indicated the list was prepared to help information specialists, librarians, and others engaged in keeping track of agricultural biotechnology serials published throughout the world. "By assisting the information professional, we are indirectly aiding research and education in the growing science of agricultural biotechnology," he said.

The term "agricultural biotechnology" is interpreted in its broadest sense, since biotechnology research and literature are characterized by their multidisciplinary nature and scope. Many of the titles included may appear to be peripheral to the central subject, but examination of specific titles shows their inclusion in the list was warranted.

The list includes titles published in 83 different countries. It was compiled by the late Robert D. Warmbrodt, and former BIC staff member, Diana Airozo, and edited by Stanislaw Kosecki and David Goldberg of NAL. It is Number 116 in USDA's series *Bibliographies and Literature of Agriculture*, July 1993, and is now available for distribution.

To obtain a copy of the *World List of Serials in Agricultural Biotechnology*,

send a self-addressed label with the request to:

Biotechnology Information Center  
National Agricultural Library  
4th Floor  
10301 Baltimore Boulevard  
Beltsville, Maryland 20705-2351

For additional information, contact BIC at:

Telephone: (301) 504-5340  
TTY: (301) 504-6856  
FAX: (301) 504-7098  
Internet: [rdobert@nalusda.gov](mailto:rdobert@nalusda.gov)

### NAL Issues New Aquaculture Bibliography

Literature on water recirculation and aeration in aquaculture is listed in a new bibliography published by NAL's Aquaculture Information Center (AIC). Assisting AIC in compiling the bibliography were scientists with the Aquaculture Research Project of USDA's Agricultural Research Service.

Entitled *Recirculation-Aeration, Bibliography for Aquaculture*, the publication lists approximately 1000 citations to literature related to "filtration, aeration, and circulation techniques in various aquaculture situations." AIC Coordinator Deborah Hanfman said, "We attempt to provide broad exposure to water quality, organic removal, invertebrate and algal culture systems, diseases and sterilization, and economics. References on partial recycled systems using wastewater



treatment processes and relevant sanitary engineering are also included." Hanfman indicated the bibliography resulted from research in catfish production that is going on at the Aquaculture Research Project in Tishomingo, Oklahoma. She stated the bibliography will be of interest to aquaculture scientists and educators, "will be of value particularly to researchers in the rapidly developing fields of closed system aquaculture and water conservation."

The bibliography, published in August 1993, is Number 124 in USDA's *Bibliographies and Literature of Agriculture* series. The compilers are Peter W. Perschbacher, Rebecca V. Powell, Donald W. Freeman, and Wendell J. Lorio of ARS, Tishomingo, Oklahoma, and Deborah T. Hanfman of AIC, NAL. It is now available for distribution.

To obtain a copy of *Recirculation-Aeration, Bibliography for Aquaculture*, send a self-addressed label with the request to:

Aquaculture Information Center  
National Agricultural Library  
Room 304  
10301 Baltimore Boulevard  
Beltsville, MD 20705-2351

For additional information contact AIC at the above address or:

Telephone: (301) 504-5558  
TTY: (301) 504-6856  
FAX: (301) 504-6409

Internet: [emcvey@nalusda.gov](mailto:emcvey@nalusda.gov)



## Revised AGRICOLA Subject Category Codes Available

The Indexing Branch of the National Agricultural Library recently published *AGRICOLA Subject Category Codes with Scope Notes (Modified AGRIS), 1993 Revision*.

The Cataloging and Indexing Branches of NAL use *AGRICOLA Subject Category Codes with Scope Notes* to classify documents for entry into AGRICOLA, NAL's bibliographic database. AGRICOLA, which stands for *AGRICultural OnLine Access*, is NAL's computerized bibliographic database consisting of literature citations for journal articles, monographs, theses, patents, computer software, audiovisual materials, and technical reports related to all aspects of agriculture.

This revised edition is enhanced by the addition of the index to the category codes, which was previously published as a separate publication. The index directs the user to an entry point within the scope notes where more in-depth information about the proper application of the codes(s) can be found.

Besides being a valuable reference tool for indexers and catalogers, the revised edition of the *AGRICOLA Subject Category Codes with Scope Notes* will help reference librarians and all other users of the AGRICOLA database to search the database more effectively.

A copy may be obtained by sending a self-addressed label with the request to:

National Agricultural Library  
Indexing Branch, Room 011  
10301 Baltimore Boulevard  
Beltsville, Maryland 20705-2351  
—Janet Berkson

## USAIN at ALA Midwinter

The USAIN (U.S. Agricultural Information Network) meeting at the American Library Association Midwinter Meeting in Los Angeles will be held on Friday, February 4, from 4:00-5:30 p.m. in Room 407 of the Convention Center.



### News Notes

## Rural Development A Priority for USDA

by Melanie Gardner  
Rural Information Center, NAL

Secretary of Agriculture Mike Espy and Under Secretary for Small Community and Rural Development Bob Nash held a one day forum titled "Rural America: Changes, Challenges, Opportunities" on October 8, 1993, in the Mellon Auditorium, U.S. Department of Commerce.

The goals of the forum were:

- To foster direct dialogue and stronger working relationships between people living and working in rural America and senior Federal officials and policymakers;
- To issue a wake-up call to the country on opportunities and serious issues facing rural America;
- To foster stronger working relationships between rural Americans and the government;
- To shift and expand the Federal perspective on service delivery to rural America; and
- To find out what works.

The forum focused on "reinventing" the way Federal Government responds to the needs of rural Americans. Many of the discussions included those on the effectiveness and problems of Federal assistance programs to rural areas.

The morning sessions centered around resources available to rural residents. Panelists, audience participants, and two Congressional members called time and time again for "rural information sharing."

The afternoon sessions focused on strategies for rural development. Resource sharing, networking, and the need for a centralized information clearinghouse became the central themes.

With this increased focus on rural America and on making the Federal government programs meet real needs in these areas, the Rural Information Center anticipates increased use and further demands for outreach.







photo: D. Starr

Leslie A. Kulp

## Kulp Is CLIS/ UMD Alumnus of the Year

Leslie A. Kulp was selected as the Alumnus of the Year by the Alumni Chapter of the College of Library and Information Services at the University of Maryland. He was honored at a special luncheon held at the University on October 15, during the 13th Annual Alumni Day. Dr. Kulp received his MLS from Maryland in 1974. He earned his Ph. D. in Entomology at the University of Maryland in 1965.

At the National Agricultural Library Kulp is Head of the Reference and User Services Branch, where he has been since March 1991. Dr. Kulp joined the NAL staff in 1970, and served in several management positions in public and technical services through 1984, when he was appointed Chief of NAL's Collection Development Staff, a position he held until 1991. He has also been an instructor in the Library Technician Program at the USDA Graduate School since 1970. [See August 1988 *ALIN*, 14(8):15, for a previous biographical profile of Kulp.]

## NAL Improves Its Facilities

During the year concluding at the time of publication of this issue of *ALIN*, users and staff of the National Agricultural Library will have noted much work on the library's facilities. Some persons may have been inconvenienced at times, but all should be pleased with the resulting improvements. Funding spread over several Fiscal Years enabled the correction of problems, repair or replacement of worn or damaged equipment, and upgrading of facilities not meeting the needs of library staff, users, and visitors. Photographs documenting these changes show improvements in the very necessary infrastructure that enables NAL to provide services to the public and other government agencies.

Marlene Taylor, NAL's Administrative Manager, managed these changes and improvements, using a variety of contracts and services procured from outside government. Clarence Keen, NAL Facilities Manager, and other NAL staff assisted Marlene Taylor in this work.

First, in the fall of 1992, NAL replaced its fuel tanks and installed an electronic control board to manage fuel use in heating the NAL building. The work was necessitated by leaking fuel from NAL's original tanks that had been installed when the building was erected in the late 1960's. Soil contaminated by the leaks and by spills that had occurred when the tanks were being filled was removed before the new tanks were installed. The new tanks and controls constitute one of the first systems in the country to meet new environmental standards for underground storage tanks. The computer in the control board monitors the quantity and rate of usage of fuel and its temperature, detects leaks and power fluxes, and prints out data reports. For several months while this work was being performed by contractors, both staff and library users had to adjust to different traffic and use patterns in the library's driveways and parking lots and at library entrances and exits.

Second, access to the building for all people, and especially for those having special physical needs, was improved. Both the main and employee entrances/exits were altered to provide for wheelchair access with curbside ramps, wider and semi-automatic doors, and pushbutton controls. At the same time restrooms in the lobby and in conference areas were remodeled to accommodate wheelchair

(Continued on page 20)



photo: B. Norris

Marlene Taylor, NAL's Administrative Manager, checks the progress of a workman converting a restroom for wheelchair access and other special needs of handicapped persons.



(Above) One of NAL's original fuel tanks suspended in the air next to Cataloging's windows.

photo: Verna Shen

(Above right) The crane and old tank in the driveway block the employee entrance, as seen from the tower. Note the former solar panels on the roof of the west wing.

photo: J. Swab



(Above center) A workman measures the depth of water in the hole where the old tanks had been, and (further right) after several days the water is coated with leaked fuel which seeped out of contaminated soil. (Above) Next to the excavating equipment plastic sheets cover oily soil to be decontaminated before going to a landfill.

photos: Ed Daymude



(Right) The larger of the new tanks being lifted by two cranes, and (far right) being set in place.

photos: J. Swab







(Left) Workmen strapping the larger of the new fuel tanks in place.

(Below left) Workmen prepare to set the smaller of the new fuel tanks in place.

(Right) Clarence Keen, NAL Facilities Manager, inspects the work, as the contractor's crew covers the tanks with pea gravel.



(Center right) Workmen dump more gravel on the tanks now fitted with piping and wiring, and (below right) nearly covered after final testing.



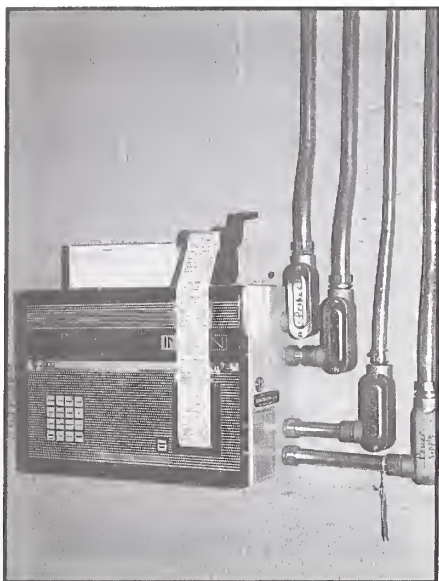
(Bottom left) After the gravel fill was complete and leveled, a grid of reinforcing rods was laid for the concrete driveway covering the area.

(Bottom right) The concrete laid and the fuel tank project completed.

photos: J. Swab







(Continued from page 18)

access and to provide conveniences for persons having special needs. Outdoors, pedestrian walkways were improved with new or repaired railings and upgraded lighting. (See also photos on the back page of this issue.)

Inside the building, the original passenger and freight elevators, the book-lift, and the book-request tubes, which had been subject to more frequent and more serious breakdowns in recent years, are being upgraded. Both machinery and electronic controls of these systems are being improved enabling faster and more efficient service. In the elevators some physical changes will be made, such as new floor surfaces. The library has also recently installed smoke detectors in all of its offices and stack spaces. In coming months the roof over the wings will be repaired, especially over the reference room where frequent leaks have occurred around the sky lights (the sky lights may be repaired or replaced). To enable some of this roof work, the experimental solar panels which were in place over the west wing in recent years, and which no longer functioned properly, have been removed. This restores the exterior appearance NAL had in its earlier years.

—Joseph N. Swab



photos: J. Swab

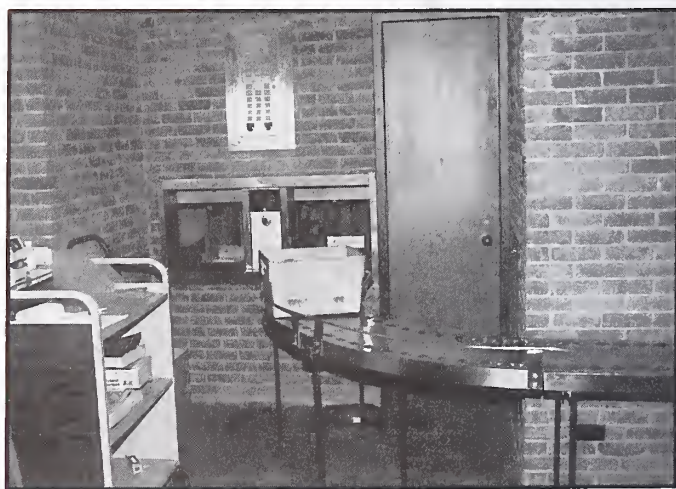
(Above left) The computerized control panel for NAL's fuel tanks and heating system.

(Above right) Clarence Keen, NAL's Facilities Manager, watches as Dave Grigonis, NAL's building engineer, demonstrates the control panel for the fuel/heating system.



(Right) Ellen Mann, Library Technician, Document Delivery Services Branch, inserts a request tube into NAL's pneumatic tube system at the Circulation Desk. The system has been having problems recently, and is scheduled for renovation as soon as needed parts arrive.

(Below right) A basket arrives from the stacks on the book lift's curved exit ramp. The system was recently renovated. Improvements in the book-lift and pneumatic tube system will improve retrieval time for materials requested from the stacks.







## New Serials Received at NAL

*Agricultura tropical / República de Cuba, Ministerio de la Agricultura, Centro de Información y Documentación Agropecuario.* Ciudad de la Habana, Cuba: CIDA. Quarterly. vol. 1, no. 1 (enero-marzo 1991)-  
**S15.A374**

*Annual Report / Commission on Preservation and Access.* Washington, DC: The Commission. Annual. July 1, 1988-June 30, 1989-  
**Z700.9.C66**

*Biodiversity and Conservation.* London: Chapman & Hall. Quarterly. Vol. 1, no. 1 (Mar. 1992)-  
**QH75.A1B562**

*CD-ROM Today.* Fair Lawn, NJ: GP Publications. Bimonthly. July/Summer 1993-  
**TK7882.C56C37**

*Cell Transplantation.* Elmsford, NY: Pergamon Press. Bimonthly. Vol. 1, no. 1- c1992-  
**RM287.C45**

*Chimica oggi.* Milano: Tekno-Scienze Srl. Monthly. 1 (mar. 1983)-  
**QD415.A1C44**

*Directory of Master Gardener Programs in the United States and Canada.* Alexandria, VA: Master Gardeners International Corp. Irregular. 1st ed. (1991)-  
**SB317.68.D57**

*Environmental Reviews = Dossiers environnement / NRC-CNRC.* Ottawa, Canada: National Research Council Canada. Quarterly. Vol. 1, no. 1- 1993-  
**GE140.E59**

*FRC Newsletter: A Bi-monthly Publication of the Forestry Research Center.*

Addis Ababa, Ethiopia: The Center. Bimonthly. Vol. 1, no. 1 (Mar. 1990)-  
**SD356.54.E82F67**

*Fisheries Bulletin.* Dublin: Stationery Office. No. 1- 1981-  
**SH261.F57**

*Food.* Boca Raton, FL: Social Issues Resources Series, Inc. Vol. 1, article 1- [1972?]-  
**TX341.F698**

*The Foundation Directory. Part 2, A Guide to Grant Programs, \$25,000-\$100,000 / Compiled by the Foundation Center.* [New York, NY]: The Center. Biennial. 1991-1992 ed.-  
**AS911.A2F652**

*Global Environmental Change Report: Policy, Science, and Industry News Worldwide from Cutter Information Corp.* Arlington, MA: Cutter Information Corp. Semimonthly. Vol. 1, no. 1 (Dec. 8, 1989)-  
**HC79.E5G563**

*Growth Factors.* Chur; New York: Harwood Academic Publishers. Monthly. Vol. 1, no. 1- 1988-  
**QP552.G76G768**

*Handbooks of Ecotoxicological Data.* Philadelphia: Gordon and Breach Science Publishers. Irregular. Vol. 1- c1992-  
**QH545.A1H362**

*Hill Country Almanac.* Austin, TX: Barton Creek Properties. Vol. 1, no. 1 (Winter 1991)-  
**SB450.965.H54**

*Human Molecular Genetics.* Oxford, England; New York: IRL Press. Eight no. a year, plus annual author/subject index. Vol. 1, no. 1 (Apr. 1992)-  
**RB155.5.H87**

*Hydrocarbon Contaminated Soils and Groundwater.* Chelsea, MI: Lewis Publishers. Annual. Vol. 1- 1991-  
**TD879.P4H83**

*The ... Information Please Environmental Almanac / Compiled by World Resources Institute.* Boston: Houghton Mifflin Co. Annual. 1992-  
**TD176.4.I54**

*International Journal of Genome Research.* Singapore; River Edge, NJ: World Scientific. Bimonthly. Vol. 1, no. 1- c1991-  
**QH447.I573**

*International Journal of Sport Nutrition.* Champaign, IL: Human Kinetics Publishers. Quarterly. Vol. 1, no. 1 (Mar. 1991)-  
**RC1235.I515**

*Journal of Restaurant & Foodservice Marketing.* Binghamton, NY: Food Products Press. Quarterly. Vol. 1, no. 1-  
**TX911.3.M3J68**

*Maryland Environmental Law Letter.* Nashville, TN: Piper & Marbury; M. Lee Smith Publishers & Printers. Monthly. Vol. 1, no. 1 (June 1992)-  
**KFM1554.M37**

*Mid-Atlantic Thoroughbred. Luther-ville-Timonium, MD: Maryland Horse Breeders Association.* Bimonthly. Vol. 1, no. 1- 1991-  
**SF293.T5M54**

*Notas técnicas: NT / Universidad de la República, Facultad de Agronomía.* Montevideo, Uruguay: La Facultad. No. 1- 1987-  
**S15.N68**

*Publikasi berkala penelitian Pascasarjana.* Bandung: Universitas Padjadjaran. Semiannual. Jil. 1, no. 1 (Sept. 1990)-  
**Q180.I5P88**

*Rental and Custom Charges for Farm Machinery.* [Winnipeg]: Dept. of Agriculture, Technical Services Branch. Annual. 1973-  
**S675.8.R37**

*Report of the Provincial Auditor to*

*the Legislative Assembly.* Winnipeg: Queen's Printer. 1969-  
HJ9921.Z9M36

*Trade Policy Review. Arab Republic of Egypt.* Geneva: General Agreement on Tariffs and Trade. 1992-  
HF1611.7.T73

*Trade Policy Review. Argentina.* Geneva: GATT, General Agreement on Tariffs and Trade. 1992-  
HF1509.T73

*Trade Policy Review. Austria.* Geneva: General Agreement on Tariffs and Trade. 1992-  
HF1541.T73

*Trade Policy Review. Bangladesh.* Geneva: GATT, General Agreement on Tariffs and Trade. 1992-  
HF1590.6.T73

*Trade Policy Review. Brazil.* Geneva: General Agreement on Tariffs and Trade. 1992-  
HF1513.T73

*Trade Policy Review. Canada.* Geneva: General Agreement on Tariffs and Trade. 1990-  
HF1479.T73

*Trade Policy Review. Finland.* Geneva: General Agreement on Tariffs and Trade. Biennial. 1992-  
HF1558.3.T73

*Trade Policy Review. Ghana.* Geneva: GATT, General Agreement on Tariffs and Trade. 1992-  
HF1616.8.T73

*Trade Policy Review. Japan.* Geneva: General Agreement on Tariffs and Trade. Biennial. 1990-  
HF1601.T73

*Trade Policy Review. Korea.* Geneva: General Agreement on Tariffs and Trade. Biennial. 1992-  
HF1602.5.T72

*Trade Policy Review. Romania.* Geneva: GATT, General Agreement on Tariffs and Trade. 1992-  
HF1581.T73

*Trade Policy Review. Singapore.*

Geneva: GATT, General Agreement on Tariffs and Trade. 1992-  
HF1595.T73

*Trade Policy Review. Uruguay.* Geneva: General Agreement on Tariffs and Trade. 1992-  
HF1527.T73

*Who's Who in Science and Engineer-*

*ing.* Wilmette, IL: Marquis Who's Who. 1992-1993-  
Q141.W576

*Work Program / FERIC.* Pointe Claire, Quebec: Forest Engineering Research Institute of Canada. 1978-  
SD388.F653



## New Bibliographies

The bibliographies in the *Quick Bibliography* series are primarily computerized online as batch bibliographies emanating from searches performed by the NAL Public Services Division Staff in response to customer requests. Searches are selected for inclusion based on the currency of the topic, interest among clientele, and probable value to a larger audience. Since October 1988, all *QB's* include search strategies. Unless otherwise specified, citations are from AGRICOLA.

The other bibliographic series, including *Special Reference Briefs*, have been researched and produced to meet special needs of clientele of the Library and its Information Centers. Revisions or updates will be announced when produced. Only one copy of a requested title will be sent; however, requesters may make copies. To request a copy of a *Quick Bibliography*, *Special Reference Brief*, or other bibliographic work, circle the desired title(s) below and send your request with a self-addressed label to:

Reference Branch, Room 100  
National Agricultural Library  
10301 Baltimore Boulevard  
Beltsville, MD 20705-2351

## Quick Bibliographies

**Q.B.—93-63.** *Seaweed Culture and Uses, January 1979-July 1993.* 254 cita-

tions; languages: none excluded. Prepared by Ann Townsend Young. Aquaculture Information Center. September 1993. Updates Q.B.—91-99.

**Q.B.—93-64.** *Part Time Farming, Small Farms and Farming in the United States, January 1989-June 1993.* 293 citations in English. Prepared by Mary V. Gold. Alternative Farming Systems Information Center. September 1993. Updates Q.B.—90-14 and Q.B.—92-29.

**Q.B.—93-65.** *Water Quality and Forestry, January 1990-June 1993.* 106 citations; languages: none excluded. Prepared by Bonnie Emmert and Joe Makuch. Water Quality Information Center. September 1993. Updates Q.B.—91-53.

**Q.B.—93-66.** *Evaluation of Agricultural Best Management, January 1983-June 1993.* 166 citations; languages: none excluded. Prepared by Bonnie Emmert and Joe Makuch. Water Quality Information Center. September 1993.

**Q.B.—93-67.** *Monitoring Water Quality for Agricultural Wastes and Agrichemicals, January 1991-June 1993.* 101 citations; languages: none excluded. Prepared by Bonnie Emmert and Joe Makuch. Water Quality Information Center. September 1993. Up-



dates Q.B.—92-68

**Q.B.—93-68.** *Green Manures and Cover Crops, January 1991-July 1993.* 268 citations in English. Prepared by Jane Potter Gates. Alternative Farming Systems Information Center. September 1993. Updates Q.B.—92-11.

**Q.B.—93-69.** *IPM and Biological Control of Plant Pests: Field Crops, January 1991-July 1993.* 289 citations in English. Prepared by Jane Potter Gates. Alternative Farming Systems Information Center. September 1993. Updates Q.B.—91-144.

**Q.B.—93-70.** *Agricultural Perspectives on Water Resource Management in the Americas, January 1985-July 1993.* 224 citations; languages: none excluded. Prepared by Joe Makuch and Bonnie Emmert. Water Quality Information Center. September 1993.

**Q.B.—93-71.** *Researching Water Quality, January 1989-July 1993.* 149 citations; languages: none excluded.

Prepared by Bonnie Emmert and Joe Makuch. Water Quality Information Center. September 1993.

## Agri-Topics

**AT—93-02.** *Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide.* Prepared by Suzanne DeMuth. Alternative Farming Systems Information Center. September 1993. 10p.

## Miscellaneous

*Bibliographic Series. Current Titles Listing No. 9, September 1993.* Prepared by Rebecca S. Thompson. Information Centers Branch. September 1993. 32p.

## Rural Information Center Publication Series

**R.I.C.P.S.—34.** *Affordable Community Housing.* Compiled by Cheryl A. Bower. Rural Information Center. October 1993. 24p.

**'94.** Manama, Bahrain, Bahrain International Exhibition Center. Contact: Kurt Seifarth, FAS/Trade Show Office, 202-720-7417; FAX: 202-690-4374.

**January 24-27: BioEast '94.** Omni Shoreham Hotel, Washington, DC. Contact: BioEast/BioConferences International, 301-652-3072; FAX: 301-652-4951.

**January 24-27: 1994: Plant Genome II.** San Diego, CA. Contact: Scherago International, 212-643-1750; FAX: 212-643-1758.

**January 24-28: Microbial Physiology and Industrial Fermentation.** Kuopio, Finland. Contact: Mobito In secretariat, Center for Training and Development, University of Kuopio, P.O. Box 1627, 70211 Kuopio, Finland, Phone: +358-71-163915; FAX: +358-71-163903; Telex: 42218 kuv sf.

**January 25: Public Issues Education: Essential Tools for Extension Educators.** University of Wisconsin. Extension satellite teleconference. Second of Three Parts. Contact: UWEX Program Support Services, 608-262-9940.

**January 25-26: National Challenge for the Commercialization of Electric/Primary Fuel Vehicles.** The Environmental Vehicles 94 Conference and Exposition. Dearborn MI. Contact: Rich Moizio, 313-995-4440; FAX: 313-663-9835.

**January 29-31: Polymerase Chain Reaction in Molecular Biology.** Washington, DC. Contact: Center for Advanced Training in Cell and Molecular Biology, 202-319-6161; FAX: 202-319-4467.

**January 30-February 1: UFFVA Convention & Exposition.** San Diego, CA. United Fresh Fruit & Vegetable Association. Contact: 703-836-3410.

**January 30-February 2: A.S.P.E.N.'s 18th Clinical Congress.** San Antonio, TX; Convention Center. Contact: ASPEN, 301-587-6315; FAX: 301-587-2365.

**January 30-February 2: Annual Conference.** South West Transit Association. Little Rock, AR. Contact: SWTA, 214-937-5200.

**February 3-4: Assessing and Managing Nutritional Status.** St. Louis, MO; Marriott's Pavilion Hotel. Contact: Mosby/Resource Applications, 1-800-826-1877; FAX: 314-432-5471.



## Agriculture Datebook

Meetings included in this list are selected from USDA's *Ag Calendar* and information provided by NAL information centers, federal and state agencies, associations, and interest groups. Normally, items are listed only once, as soon as practical after receipt. Inclusion does not constitute endorsement by NAL or USDA. Please send items for consideration to:

National Agricultural Library  
ALIN Editor, Room 204  
10301 Baltimore Boulevard  
Beltsville, MD 20705-2351

**January 20-21: Assessing and Managing Nutritional Status.** New Orleans, LA; Omni Royal Orleans. Contact: 1-800-826-1877; FAX: 314-

432-5471.

**January 20-23: 14th Annual Ecological Farming Conference.** Monterey, CA; Asilomar Conference Center. Contact: Committee for Sustainable Agriculture, 916-756-6967.

**January 21-23: Annual East Coast Commercial Fishermen's and Aquaculture Trade Exposition.** Ocean City, MD. Contact: Betty Duty, 410-269-6622; FAX: 410-269-6635.

**January 21-28: Transposition and Site-Specific Recombination: Mechanism & Biology.** Park City, UT. Contact: Keystone Symposia, 303-262-1230.

**January 22-25: MEFEX'94. 8th Middle East Food and Equipment Show and Salon Culinnaire-MEFEX**

**February 3-4: The Fish Farming Trade Expo.** Greenville, MS. Contact: Mike McCall, 601-956-6702; FAX: 601-956-4047.

**February 4-6: 11th Biennial National Conference on Hispanic Health and Human Services.** National Coalition of Hispanic Health and Human Services Organizations. Contact: COSSMHO, 202-387-5000.

**February 6-8: Washington Policy Conference.** National Association of Regional Councils. Washington, DC; Hyatt Regency. Contact: 202-457-0710.

**February 7-11: Comparative Gene Mapping in Terrestrial and Aquatic Vertebrates.** Oslo, Norway. Contact: Harris A. Lewin, 217-333-5998; FAX: 217-244-5617; BITNET: BLOOD@UIUCVMD.

**February 13-16: Agriculture and Water Quality: Programs, Policies, Alternatives, and Implications.** Kansas City, MO; USDA Working Group on Water Quality and American Society of Agricultural Engineers. Contact: 202-205-5853.

**February 13-20: Nucleic Acid-Protein Interactions.** Tamarron, CO. Contact: Keystone Symposia, 303-262-1230.

**February 15-18: Annual Erosion Control Association Conference and Trade Exposition.** Reno, NV. Contact: Peter Passarelli, 916-371-5805; FAX: 916-371-0764.

**February 17-18: Assessing and Managing Nutritional Status.** Dallas, TX; Radisson Hotel N. Dallas. Contact: Mosby/Resource Applications, 1-800-826-1877; FAX: 314-432-5471.

**February 21-27: World Soybean Research Conference V.** Chiang Mai, Thailand. Contact: Conference Secretariat, World Soybean Research Conference V, Department of Agricultural Extension, 2143/1 Phaholyotin Road, Chatuchak, Bangkok 10900, Thailand.

**February 22: Public Issues Education: Essential Tools for Extension Educators.** University of Wisconsin—Extension satellite teleconference. Second of Three Parts. Contact: UWEX Program Support Services, 608-262-9940.

**February 22-24: 5th Annual International Recycling Symposium.** Solid Waste Association of North America.

Baltimore, MD. Contact: Chelsea Matej, 301-585-2898.

**February 22-26: International Making Cities Livable Conference.** San Francisco, CA. Contact: Susan Crowhurst Lennard, 408-626-9080.

**February 24-26: Catfish Farmers of America.** Panama City, FL. Contact: Catfish Farmers of America, 601-887-2699.

**February 27-March 2: American School Food Service Association Legislative Action Conference.** Washington, DC. Contact: Jacqueline Williams, 703-305-2844.

**February 27-March 2: AWWA/WEF Water Reuse Symposium.** Dallas, TX. Contact: Water Environment Federation, 703-684-2464.

**February 27-March 2: Tech Trans 94 National Conference.** San Diego, CA. Contact: Tech Trans 94, 303-799-0667

**March 1: Remediating Hazardous Waste and Groundwater Contamination Sites: New Approaches.** Miami, FL. Contact: Libby Strickland, 703-684-2400; FAX: 703-684-2475.

**March 2-5: Osteoporosis.** Washington, DC; Omni Shoreham Hotel. Contact: Sharon Alleyne, 202-223-2226; FAX: 202-223-2237.

**March 3: Model Partnerships for Workforce Education.** Contact: The Business Channel, 1-800-257-2578.

**March 3-5: NALMS 3rd Annual Southeastern Lakes Management Conference—Watershed Management: From Concept to Implementation.** Columbia, SC. Contact: Barbara Wiggins, Mecklenburg Co. Environmental Protection, 700 N. Tryon St., Suite 205, Charlotte, NC 28202-2236; FAX: 704/336-4391.

**March 7-10: Twenty-First Conference on Agricultural and Forest Meteorology and Eleventh Conference on Biometeorology and Aerobiology.** San Diego, CA; Catamaran Resort Hotel. Contact: Mary Glackin, 301-713-0462.

**March 10-11: Assessing and Managing Nutritional Status.** Atlantic City, NJ; Trump Plaza. Contact: Mosby/Resource Applications, 1-800-826-1877; FAX: 314-432-5471.

**March 15-17: International Boston Seafood Show.** Boston, MA. Contact: Kate Halpert, 207-774-0076; FAX:

207-772-5059.

**March 15-18: Estuarine and Marine Shallow Water Habitats Conference in the Mid-Atlantic Region.** Atlantic City, NJ. Contact: Ralph Spagnolo, 215-597-3642; FAX: 215-597-7906.

**March 21-23: Pacific Northwest/Oceania Conference; Assessment of Models for Groundwater Resources Analysis and Management.** Honolulu, HI. Contact: Aly I. El-Kadi, 808-956-6331.

**March 22-24: 17th Annual Landfill Gas Symposium.** Solid Waste Association of North America. Long Beach, CA. Contact: 301-585-2898.

**March 22-26: 5th National Conference.** Public Library Association. Georgia World Congress Center. Atlanta, GA. Contact: 1-800-545-2433.

**March 23-25: Bordeaux Aquaculture: Measures for Success: Metrology and Instrumentation in Aquaculture Management.** Bordeaux, France. Contact: BCS, FAX: 3356431776.

**March 24-25: Assessing and Managing Nutritional Status.** Los Angeles, CA; Holiday Inn LAX. Contact: Mosby/Resource Applications, 1-800-826-1877; FAX: 314-432-5471.

**March 27-30: IFAC Symposium on Modeling and Control in Biomedical Systems.** Galveston, TX. Contact: Susan George, 409-770-6628; FAX: 409-770-6825.

**March 27-30: Second International Conference on Ground Water Ecology.** Atlanta, GA. Contact: John Simons, 202-260-7091.

**March 30-April 2: National Science Teachers Association, 1994 NSTA National Convention.** Anaheim, CA. Contact: 202-328-5800.

**April 7-10: Seventh National Community College Wellness Conference.** Natural Bridge, VA. Contact: Sharon Ratcliff, 703-674-3600, Ext 316; FAX: 703-674-3642; or Peter Sprano, 703-228-5541.

**April 10-11: National Association of WIC Directors National Meeting.** Chicago, IL. Contact: Barbara Hallman, 703-305-2730.

**April 10-13: Toxic Substances and the Hydrologic Sciences.** Austin, TX; Omni Austin Hotel. Contact: Surface Water: Carl Anderson, 214-934-0800; FAX: 214/934-1429; Groundwater: Richard Jackson, 512-346-2000, FAX:



512-346-9436.

**April 10-15: The International Association of Astacology.** Adelaide, Australia. Contact: Mike Geddes, 318-231-5239.

**April 16-19: American College of Health Care Administrators 28th Annual Convocation and Exposition.** Dallas, TX. Contact: ACHCA, 703-549-5822.

**April 17-20: Responses to Changing Multiple-Use Demands: New Directions for Water Resources Planning and Management.** Nashville, TN. Contact: Jack Gordon, 615-372-3454.

**April 19: Helping US Students To Be First in the World in Math and Science.** Contact: (USDEd) 1-800-USA-LEARN.

**April 19-21: European Seafood Exposition.** Brussels, Belgium. Contact: 207-774-0076; FAX: 207-772-5059.

**April 20-21: The Second Environmentally Sound Agriculture Conference.** Orlando, FL. Contact: Del Bottcher, 904-392-8535.

**April 24-26: 29th Annual Legislative Conference.** California Transit Association. Sacramento, CA. Contact: 916-446-4656.

**April 24-27: Second International Symposium on Nutritional Strategies and Management of Aquaculture Waste.** Aalborg, Denmark. Contact: C.Y. Cho, FAX: 519-763-5902.

**April 24-28: First World Congress on Computational Medicine, Public Health, and Biotechnology.** Austin, TX. Contact: Compmed 1994, 512-471-2472; FAX: 512-471-2445.

**April 24-28: Experimental Biology '94.** Anaheim, CA. Contact: FASEB, 301-530-7010; FAX: 301-530-7014.

**April 25-29: The International Land Reclamation and Mine Drainage Conference and the 3rd International Conference on Abatement of Acidic Drainage.** Pittsburgh, PA. Contact: Debbie Lowanse or Bob Kleinmann, 412-892-6708; FAX: 412-892-4067.

**April 26-29: Plant Membrane Biology, The Phytochemical Society of Europe.** Lund, Sweden. Contact: Dr. P. Brodelius, Dept. of Plant Biochemistry, University of Lund, P.O. Box 7007, S-22007, Lund, Sweden.

**April 29-May 2: International Association of Fairs and Expositions (IAFE) 26th Annual Spring Con-**

**ference.** Pomona, CA; Sheraton Suites Fairplex. Contact: 417-862-5771.

**May 1-7: Small Business Week.** Contact: Janie Dymond, 202-205-6740.

**May 8-11: Fishery China '94.** Hong Kong, China. FAX: 8528613228.

**May 8-13: HPLC'94, 18th International Symposium on High Performance Liquid Chromatography.** Minneapolis, MN. Contact: Barr Enterprises, 301-898-3772; FAX: 301-898-5596.

**May 10-12: 15th National Online Meeting & IOLS '94.** New York, NY. Contact: Learned Information, 609-654-6266; FAX: 609-654-4309.

**May 10-12: Seafood Europe.** Utrecht, Netherlands. Phone: 44714045513; FAX: 44718319362.

**May 11-14: International Association for Aquatic Animal Medicine.** Vallejo, CA. Contact: Brad Fenwick, 913-532-4412.

**May 15-19: Pearls '94.** Honolulu, HI. Contact: Robin Crest, 415-595-2625; FAX: 415-595-3379.

**May 17: Latin American Seafood Conference.** Fort Lauderdale, FL. Contact: Sea Fare Expos, 206-547-6030; FAX: 206-548-9346.

**May 17-19: Scottish Fish Farming Conference and Exhibition.** England. Contact: Peter Landless, FAX: 44285650729.

**May 18-19: Sea Fare Americas and South Florida Foodservice Expo.** Fort Lauderdale, FL. Contact: Sea Fare Expos, 206-547-6030; FAX: 206-548-9346.

**May 21-23: IUFRO Working Party on Molecular Genetics of Forest Trees.** Scarborough, ME. Contact: Keith W. Hutchison, 207-581-2827; FAX: 207-581-2801.

**May 21-25: American Society for Biochemistry and Molecular Biology.** Washington, DC. Contact: FASEB, 301-530-7010; FAX: 301-530-7014.

**May 22-24: NABC 6, The Sixth Annual Meeting of the National Agricultural Biotechnology Council, Biotechnology and the Public Good.** East Lansing, MI; Michigan State University. Contact: NABC News, 607-254-4856.

**May 22-25: Nutrient Data Bank Conference.** St. Louis, MO. Contact: Nutrient Data Research Branch, Room 315 Federal Building, 6505 Belcrest Rd., Hyattsville, MD 20782.

**May 23-27: BIO International, 8th Annual Biotechnology Meeting and Expo.** Toronto, Canada. Contact BIO International, 202-857-0244; FAX: 202-857-0237.

**May 23-27: Community Transportation Expo '94.** Community Transportation Association of America. Pittsburgh, PA. Contact: Charles Dickson, 202-628-1480.

**June 1-3: Biosensors: 3rd World Congress.** New Orleans, LA. Contact: Kay Russell, Elsevier Advanced Technology, Mayfield House, 256 Banbury Road, Oxford OX2 7DH, UK, Phone: 44 (0865) 512243; FAX: 44 (0865) 310981.

**June 5-8: 2nd North American Waste-to-Energy Conference.** Solid Waste Association of North America. Boston, MA. Contact: 585-2898.

**June 7-10: BioWest '94.** San Diego, CA; San Diego Princess Resort. Contact: BioConferences International, 1-800-5-BIOCON.

**June 7-10: 5th International Symposium on Society and Resource Management.** Colorado State University. Contact: Michael Manfredo, 303-491-6591.

**June 9-12: Cuisine, Agriculture, and Social Change.** Tucson, AZ; Westward Look Resort. Contact: Beth Stewart or Ann Tinsley, Department of Nutritional Sciences, Shantz 309, The University of Arizona, Tucson, AZ 85721.

**June 12-15: 1994 PREP Symposium & Exhibit: International Symposium on Preparative Chromatography.** Washington, DC. Contact: Janet Cunningham, 301-898-3772; FAX: 301-898-5596.

**June 19-22: American Society of Agricultural Engineers International Summer Meeting: Engineering for Sustainable Development.** Kansas City, MO. Contact: ASAE, 616-429-0300; FAX: 616-429-3852.

**June 19-22: The Management of Water and Wastewater Solids for the 21st Century: A Global Perspective.** Dallas, TX. Contact: Water Environment Federation, 703-684-2464.

**June 19-23: The Meeting of the Waters: Communities at Work.** Association of Living Historical Farms and Agricultural Museums. Troy, NY; Russell Sage College. Contact: Eric Paige, 607-547-2586.



# LIST OF KEY NAL PERSONNEL AND SERVICES

NAL ORGANIZATION	Contact	Area 301	FAX #	Internet*
TTY (For All NAL Personnel and Services)		504-6856		@nalusda.gov
<b>Director</b>	Joseph Howard	504-5248	504-7042	jhoward
Assistant Director for Policy and Planning	Maria Pisa	504-6780	504-7042	mpisa
Public Affairs Specialist	Brian Norris	504-6778	504-5472	bnorris
Special Services & Communications	Joseph Swab	504-6778	504-5472	jswab
Administrative Manager	Marlene Taylor	504-5570	504-7042	mtaylor
Facilities Manager	Clarence Keen	504-5843	504-5472	
<b>Associate Director for Automation</b>	Pamela Andre	504-5018	504-5472	pandre
Assistant to Assoc. Dir., Automation	Richard Thompson	504-5018	504-5472	rthomp
Database Administration Branch	Gary McCone	504-6813	504-7473	gmccone
Current Awareness Literature Service	Anita Speight	504-6859	504-7473	aspeight
ISIS Coordinator	Claudia Weston	504-6813	504-7473	cweston
ISIS Support Line	Chuck Schoppet	504-6342	504-7473	cschoppe
Text Digitizing	Judi Zidar	504-5853	504-7473	jzidar
Library Automation Branch	William Feidt	504-6813	504-7473	wfeidt
End-User Support	Grace Sines	504-6813	504-7473	gsines
Networking	Greg Dobrich	504-6813	504-7473	gdobrich
OCLC Coordinator	David Goldberg	504-6813	504-7473	dgoldber
<b>Associate Director for Public Services</b>	Keith Russell	504-5834	504-5472	krussell
Assistant to Assoc. Dir., Public Services	Janice Kemp	504-5834	504-5472	jkemp
ARS Field Libraries	Peggy Beavers	504-5834	504-5472	pbeavers
Document Delivery Services Branch	Carol Ditzler	504-6503	504-5675	ddshead
Circulation Section	Susan Fugate	504-6503	504-5675	circinfo
INFORMATION & Circulation Desk	NAL Staff	504-5755	504-5675	circinfo
Loan Renewals	NAL Staff	504-5798	504-5675	circinfo
Stack Passes	NAL Staff	504-5755	504-5675	circinfo
Interlibrary Loan Information	NAL Staff	504-5755	504-5675	circinfo
Regional Document Delivery System	Tanner Wray	504-6503	504-5675	nalrdds
Interlibrary Borrowing Section	Michael Thompson	504-6503	504-5675	ilbstaff
Interlibrary Lending Section	Julie Mangin	504-5879	504-5675	lending
NTIS - ILL Billing	NAL Staff	504-6503	504-5675	ddsbadm
Information Centers Branch	Robyn Frank	504-5414	504-6409	rfrank
Agricultural Trade & Marketing Inf. Ctr	Mary Lassanyi	504-5509	504-6409	mlassany
Alternative Farming Systems Info. Ctr	Jane Gates	504-5724	504-6409	kgates
Animal Welfare Information Center	Jean Larson	504-5215	504-6409	jl Larson
Aquaculture Information Center	Eileen McVey	504-5558	504-6409	emcvey
Food and Nutrition Information Center	Sandy Facinoli	504-5414	504-6409	fnic
Rural Information Center	Patricia John	504-5372	504-5181	pjohn
Youth Development Information Center	John Kane	504-6400	504-6409	jkane
Reference & User Services Branch	Leslie Kulp	504-6875	504-7098	lkulp
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## NAL Improves Its Facilities



photos: J. Swab

Workmen renovate NAL elevators and exterior hand railings in these photos as part of NAL's program to improve its facilities. For additional coverage of these improvements, see pages 17-20 of this issue of *ALIN*.



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